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ABSTRACT

This paper discusses beginning reading instruction in the light of Piaget's theory, which demands that we think more broadly about the term "where the child is" in terms of his level of thinking, not simply his reading level or reading skill level. Using Piaget's four major developmental stages as the basis, the task of instruction in reading becomes matching the child's level of thinking with the skills which the school requires. This paper examines the thinking of children during the pre-operational and concrete operational stages, and suggests that the attainment of the stage of concrete operations, or the attainment of conservation, is what constitutes readiness for reading printed material written by someone else. Reading programs constructed from this perspective, must deal with the reading "process" first, utilizing the different strategies available to a child at each stage of thinking. (CS)

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APPLYING PIAGET'S THEORY TO READING INSTRUCTION

Anna L. Heatherly

My own personal concern and thus the research and work in which I am engaged concerns beginning reading instruction and it is concerning this topic that I would like to share some of my thoughts with you today.

There are many questions concerning the teaching of reading, many of which are concerned with teaching very young children. Among the most familiar are: "How should reading be taught?", "When should reading instruction begin?", "How do you know when a child is ready to read?", "What is the best method?", "How do you get children ready to read?", "What are some of the best methods of assessing readiness?" and "Are linguistic strategies better than traditional phonics in beginning reading programs?" All of the questions are persistent ones which have been written about extensively and to which you, too, may be seeking answers.

These kinds of questions involving reading and early childhood education have become more persistent in the last ten to fifteen years because of changes in emphasis in early childhood programs. For years, pre-school programs were viewed as places where teaching children to get along was the main goal and there was very little academic orientation. The emphasis was on providing experiences for children in very informal, unstructured ways.

In recent years, however, the education of the young child has taken a more academic approach. Now many persons tell us that children younger than six can and should be taught to read, some children learn to read on their own, and some persons even admonish us as teachers for not teaching younger children. From the publishing companies we are bombarded with reading programs and reading kits- all of which

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promise to be a panacea if properly used. Some of the reading programs for young children such as the one by Bereiter and Engleman have attained much national attention and recognition. From the media, programs such as Sesame Street, designed to teach beginning reading skills, merits two hours of prime television time daily.

In the midst of all the controversy and discussion, the question of how and when to start reading instruction remains a dominant issue. It remains so not only to members in the group here who are concerned with teaching young children but also because of the constant bombardment of reminders concerning children who have not learned to read. If one is to believe the information centered around the Right to Read Program, then we must admit that we are, in fact, graduating children from high school today who are not functionally literate. An interesting court case is one in California where a high school graduate has sued the state because he is, for all practical purposes, illiterate although he attended school regularly. The case has not yet been decided but the results will be extremely interesting.

Why is all this happening? Why do so many children have so much trouble learning to read? Do we not have enough teachers, enough supplies, or can the children simply not learn to read? I doubt that either of the three factors mentioned is true. So we are forced to look elsewhere for a source to the problem- our teaching perhaps.

Perhaps the most worn cliche in educational jargon is "start with the child where he is." We all profess to believe that is the proper thing to do. When I ask any group of teachers or students what to do after we have discussed a child's reading problem, that is usually the response I get. Whether the example is a child in eighth grade who reads like a first grader, or a first grader who reads like a fifth grader.. the response is always the same. That response itself sounds very high, mighty, and knowledgable. I do believe teachers are sincere when they say this. And though we all agree that we should start where the child is, the very practical problem seems to finding out exactly where that is.

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I would like to suggest to you that I believe there is a way in which this may be done. It will, however, demand some major changes in our thinking and in our teaching. It also demands that we think more broadly about the term "where the child is" to include his level of thinking, not simply his reading level or reading skill level. Then our job becomes one of matching the child's level of thinking with the tasks which the school requires.

I believe the works of Jean Piaget, a Swiss psychologist, who has developed a vast theory of intelligence and how it develops may have some valuable insights for us. While he does not speak directly to education or specifically how to teach reading, we can make some valid inferences from his writings.

First, I should like to describe for you very briefly a small portion of his theory. He has described four major developmental stages through which all children pass. The four stages are: sensory motor (age birth - 2); the pre-operational (ages 2 - 7); concrete operations (ages 7 - 11), and the stage of formal operations (age 11 - adult). The stages are sufficiently open ended to allow for the fact that children show different levels of ability, knowledge, and skill as a function of the rate, quality, and continuity of the experiences they encounter. So, the stages are more nearly comparable to mental ages than chronological ones.

The two major stages with which we are concerned are the pre-operational and concrete operations since these two stages cover the age range for the pre-school through elementary school. Let's examine the thinking of children in these two stages for a moment.

During the pre-operational stage, the child is dominated by how things look as opposed to how they really are. Piaget has applied the term egocentric to this kind of thinking. The term egocentric when used for children's thinking does not have the same implications as when used for adult thinking. What Piaget is saying about children's thinking is that children look at objects and events from their

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own point of view and not from another and this view is bounded by their five senses, i.e. in children's art, the sky is always separated from the buildings and the sky is always up above. As a result of pre-operational thinking we have some of the beautiful child language which sometimes causes us to chuckle such as, "Does the moon go to bed when I do?" , "Does the sun get up when I do?" They truly believe the world revolves around themselves as is evident in their statements- "I can tie my shoes.", "I can count up to 303. Do you want to hear me?" "My mommy brought me to school.", " I'd rather do it myself." Their communication is often incomplete because they leave out many details, assuming that the listener understands. My favorite example of this is from a book entitled Children's Letters to God. It goes like this, " Dear God. I got left behind. Thanks a lot. Raymond." Maybe God understands the message, but most of us mortals do not. Another characteristic of children's thinking in this stage is that connections appear very clear and they do not ask for explanations. For example, have you ever given a worksheet to a child to complete and he gets all the answers wrong? Then you say to him in your very academic, teacherly voice, " If you didn't understand how to do this, why didn't you ask for help?" The blank stare which he gives you in return should tell you that your question didn't make any sense. He thought he did understand and he completed the task as he understood it. He didn't even know he needed your help. While we may chuckle and think the language and comments of the above examples are rather cute, what we need to understand is that this is the typical kind of speech and thinking of beginning children whom we teach.

Piaget has designed a series of tasks to explore children's thinking and to help designate the pre-operational thinker from the concrete operational one. The tests are referred to as conservation tasks and include such items as pouring water from a tall container into several shorter ones holding the same amount as the tall

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one and questioning the child about the amount of water in the two containers; or by using play doh, some of which remains as a ball and the other ball is flattened out like a hot dog and then questioning the child about the amount of play doh. From the questioning, we notice a radical difference in the thinking of the pre-operational child and the concrete operational one. The concrete operational child's thinking is different because he can reason and draw conclusions; he can take another point of view, and he is not deceived by the appearance of objects or events.

On the conservation tasks, the pre-operational child will respond that there is more water if the container is taller, or more play doh if it is rolled out like a hot dog, even though the child had agreed that the amounts were the same in the beginning. This is a result of being guided by how things look, or percepts, not how they really are.

The concrete operational child, however, can reason that if you started out with the same amount of water or play doh, you still have the same amount no matter how different you made it look. That is, they can consider events from a different point of view from the pre-operational child.

This is all very interesting and the conservation tasks are even a great deal of fun to give, but how does it relate to reading instruction? What I would like to suggest to you is that the attainment of the stage of concrete operations or the attainment of conservation is what constitutes readiness for reading printed material written by someone else. A common example of the printed material would be the basal readers which are used extensively in the public schools. In these stories, what the reader must, in fact, do is to assume a self-other position or role play the characters in the story if he is to understand or comprehend the story. This type of thinking is possible for the concrete operational child but <u>not</u> for the pre-operational

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one. If we all agree that comprehension in reading is our main goal, then this would seem to be of great importance. If my assumption about the relationship between conservation and reading is true, then there is a very powerful implication for beginning reading instruction which is that it is comprehension, and not word recognition, which is really the essential component of beginning reading.

The stage of concrete operations also has implications for many reading skills from very simple to very complex including the following: recognizing a letter as being the same letter whether it appears in capital or lower case- manuscript or cursive print; recognizing the letter as being the same when it appears in a different type style; the knowledge that one letter may represent many sounds or that the same sound can be represented by different letters; recognizing the word as being the same when it appears in another context; orientations in space such as left-right, up - down, over - under; understanding and using such terms as less than, more than, and relational terms such as "is the father of," "is taller than," or "is a kind of" ; the ability to enter into the story via role playing; the ability to put a sequence of events in a story in the proper temporal order and the ability to manipulate ideas in a story from one episode to the next to predict the outcome of the story.

Before the child reaches the stage of concrete operations when he can comprehend material written for him, we might infer from the writings of Piaget as well as from other cognitive psychologists and from recent work in psycholinguistics that children should learn to read from their own native language. We refer to this as the language experience approach when we describe a teaching procedure. I would like to suggest to you that I believe the language experience approach serves as a kind of conservation training which moves children from pre-operational to concrete operational thought.

In his writings, there are two words which Piaget stresses over and over. These

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two words are action and interaction, and any program planned for young children should be planned with these two terms in mind. I believe a program which is based on these two factors would be one where children are given a wide range of individual and group experiences in which the child is given opportunities to share and play with his peers, to learn about the world about him, and to use language freely, frequently, and informally. Whatever the child learns must flow from actual experiences the child has had with objects and events. In this way, the child can move toward symbolization, abstraction, and generalizations. The room should have many resources: real objects of a kind to arouse children's curiosity, books and pictures, and many opportunities to observe and try things out. Oral language facility is the prime objective. The tasks which the child is required to do should be open ended tasks stemming from first hand experiences such as creative writing, role playing, choral reading, improvised drama. Areas such as science should be taught from a discovery or exploration point of view rather than single word answers, convergent questions and filling in blanks in workbooks. The latter activities simply reinforce the egocentricity of pre-operational thought and emphasize a right-wrong kind of approach and thus inhibit language development. The questioning techniques of the teacher are also extremely important. The kinds of questions she should be asking are the "What do you think?" and "Why do you think so?" type rather than just the "What" kind.

These, then would be some of my own criterion for reading programs for young children. What they attempt to do is to utilize the different processes and strategies available to a child at each stage of thinking. I am aware that there are many confusing and conflicting opinions in the world of reading - especially what reading is, but in particular how it should be taught- and perhaps I have added only one

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more confusing bit of information to your repertoire today. But I sincerely believe that until we consider individual children and their level of thinking and really begin "where the child is" we won't make any progress. This implies that we must deal with the reading process first and then construct the programs- rather than the other way around. Until then, we will continue to have children who do not learn to read or for whom it is a very difficult task indeed.

We are making some progress in reading instruction although it is often very slow. Or if I may use one of the popular Virginia Slims ads, " You've come a long way, baby, to get where you are in reading instruction today. But you still have a long, long way to go."

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Footnotes

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